



DEPARTMENT OF INFORMATION TECHNOLOGY

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OVERVIEW

The City's Department of Information Technology is charged with maintaining the City's extensive digital networks, thousands of workstations, phone systems, radio communications, mainframe computers and data storage functions. In addition, DIT personnel advise the mayor and City Council on other issues involving the deployment of advanced technology in areas including homeland security and public access to information and services via the Internet.

MAYOR HANNEMANN'S IT DIRECTIVES (SEPTEMBER, 2006)

Purpose Of Directive

This directive establishes the general policy on Information Technology (IT) services for the City and County of Honolulu.

The General Strategy

To enable the City and County of Honolulu to best manage all of its IT resources, the Department of Information Technology (DIT), under guidance from the IT Steering Committee (ITSC), shall develop and direct an integrated network of computer resources that shall provide Information Technology and telecommunications services to all City Agencies and authorized users. Through centralized management of IT services, all users of the City's network will be able to more effectively share data, information, technology, resources, and technical expertise in a cost-effective and efficient manner.

In conjunction with Information Technology management, the Department of Information Technology will promote "user self sufficiency" by establishing a working environment whereby agencies will be encouraged to perform simple Information Technology tasks at their own sites. DIT will make available the necessary data, provide the tools, training, and any necessary assistance to enable users to attain greater self-sufficiency.

The City also recognizes the continuing need to work in concert with the entire community —federal, state and county agencies as well as the private sector and the public. The Department of Information Technology (DIT) will continuously promote an environment of automated information exchange using various technologies to improve the delivery of city services:

Customer Service

- Improve underlying information technology infrastructure;
- Bring legacy systems to current state-of-the-art levels;
- Expand E-government (more online/less inline);
- Improve agency workflow with a move to a less paper oriented methodology;
- Improve interoperability of a common radio system improving communications between and amongst agencies;
- Expand wireless technologies throughout Oahu through private partnerships and government partnerships;
- Improve opportunities for local tech startups.
- Look at ways to enhance economic development through technology

Assignment Of Primary Information Technology Responsibility

This directive assigns to the Director of Information Technology the primary responsibility of managing all IT resources and services in the City and County of Honolulu. The director is also given the title of Chief Information Officer (CIO) of the City and County of Honolulu with the responsibility for developing the City's long range IT related plans, goals and objectives as well as measures for its achievement. The CIO will insure that all IT plans are consistent with, and supportive of, the stated business needs of the various departments within the City and County of Honolulu.

City Ordinance No. 3479 approved by the mayor on October 10, 1969, provided for the Department of Information Systems. The department was renamed the Department of Data Systems in the Revised

Charter of the City and County of Honolulu of 1973. On January 1, 1999, the department was renamed the Department of Information Technology to reflect the reorganization of the city government and to be more consistent with the IT industry. Chapter 13, Section 6 of the Revised Charter delineates the powers, duties and functions of the Director of the Information Technology as follows:

1. Operate information systems excluding those systems maintained by the Board of Water Supply and any other semi-autonomous agencies created by ordinance;
2. Provide technical expertise in information systems/technology to the City government;
3. Assist the managing director in management information analysis and evaluation;
4. Advise the mayor on information technology matters, as it relates to government operations and the development of a tech industry in Honolulu;
5. Provide objective third party guidance in the selection of technologies for all city and county departments;
6. Chair the Public Safety Oversight Committee and facilitate an integrated approach to technology deployment in the area of public safety
7. Perform such other duties as may be required by law.

More specifically, the Director of Information Technology is given the following responsibilities to effectuate the IT strategy of the City:

1. Establish standards, procedures, guidelines, rules and regulations to effectively manage the City's computer information and telecommunications resources;
2. Develop a strategic information systems plan with input from the IT Steering Committee for the City and review the plan on a regular basis to ensure proper product prioritization, control and viability in the face of rapid technological changes in the industry;
3. Provide technical approval for the acquisition of all IT related hardware, firmware, software, personnel, and contractual services, for all city agencies;
4. Provide sufficient security policies and procedures to maintain data integrity, protect data from loss, misuse, and unauthorized access, and ensure compliance with copyright and privacy laws;
5. Maintain information technology and telecommunications facilities for the City and County of Honolulu and all operational computerized systems;
6. Optimize the use of shared data through efficient data base management systems;
7. Serve as the "custodian" of data owned by city and county departments and stored on City and County of Honolulu information systems;
8. Provide other government agencies and organizations with information requested, subject to legal and security constraints;
9. Develop and implement an end-user support plan to enable agencies to attain "user self-sufficiency" in obtaining timely management information from stored databases;
10. Evaluate technological advancements, product lines, and alternate solutions to Information Technology requirements as applied to city operations;
11. Develop, implement, and maintain a viable telecommunications plan to continually improve reliability and response time for users of the integrated telecommunications network. The Department of Information Technology shall provide city agencies with all telecommunication hardware, software and carrier services;
12. Develop a program to assure that all desktop workstations utilized by the City work force are replaced or upgraded on a prudent basis (usually 4-5 years);
13. Assist the mayor, the managing director, and city agencies in assessing IT requirements, and in developing viable plans of action;
14. Establish an ongoing comprehensive training program for DIT staff and users of the City's IT resources;
15. Act as technical advisor to state and county agencies using statewide systems operated by the City's central computing facility;
16. Develop charge back methodologies and cost-sharing agreements with non-city agencies;
17. Advise and assist departments in the preparation of long range and short range plans for using information technology within their department, as well as for the procurement and implementation of computer applications which support the business needs of the department;

18. Evaluate each city agency's IT plans and service requests for technical feasibility and impact on DIT's resources. Recommend a work priority and implementation schedule, and advise the City managing director;
19. Monitor and act on legislative proposals in all levels of government that may directly or indirectly affect the IT plans, policies and procedures of the City;
20. Develop and implement guidelines and procedures that ensure compliance with the policies and intent of this directive;
21. Monitor the use of grant funds earmarked for technology (e.g. computers, security, access control, cameras) to insure integration with city and county standards;
22. Manage the microwave and 800 MHz radio systems to ensure maintenance, upgrades fall within documented standards;
23. Monitor and approve allocation and spending grant for the acquisition of technology for the City and County of Honolulu;
24. Director of DIT will insure that all backup to disaster recovery procedures are tested quarterly and in place;
25. Manage the City's various telephone systems to ensure that the City voice communications are available in the most cost-effective manner;
26. Manage the City's telecommunication revenue opportunities, ensuring that optimal revenues and services are obtained.
27. Ensure that data, security, hardware, software, communications, client server, mainframe, risk management, and related technology strategies are updated and deployed on an annual basis.
28. Oversees the implementation and support of enhanced (E911) services Oahu-wide.

Assignment Of DIT Responsibilities To Department Heads

While the Department of Information Technology has the primary responsibility to ensure that the City's data and telecommunications needs are adequately met, and computer resources are effectively managed, the director of each city agency will be responsible for the following areas:

1. Each department, with the assistance of DIT, shall develop long range and short range plans for utilizing information technology within their department. These plans shall be specific as to departmental priority. Planned projects should include anticipated benefits to be gained, such as increases in staff productivity and efficiency, lower operating costs, and/or anticipated increases in services to the public. Departmental plans shall be updated, as may be necessary, to reflect additions and changes;
2. Together with DIT, determine the priority and level of internal coordination necessary to adequately support all departmental IT activities, and delegate these responsibilities to appropriate departmental personnel;
3. Include in the department's annual budget request, funding for those projects that have been given technical approval from the Department of Information Technology;
4. Present written requests to the Department of Information Technology for all IT services desired using the appropriate designated forms;
5. Request assistance from the Department of Information Technology on the need to train designated staff members in the use of standard IT hardware and software utilized within the City;
6. As the "owner agency" of electronic data files, provide the Director of Information Technology with written approval authorizing its release to other government agencies, private organizations, and the public
7. As an agency requesting the use of electronic data, obtain the consent for the use of data from the appropriate "owner agency." The Department of Information Technology, as custodian of all electronic data files, will require approval for access from the "owner agency" prior to its release;
8. Develop and implement adequate departmental security procedures consistent with the security policies established by the Department of Information Technology;
9. As member of DIT Steering Committee, help to identify and prioritize all DIT project requests.
10. Develop a department Technology Risk Assessment with the help of the Department of Information Technology for backup/recovery and disaster preparedness.

DIT Responsibilities For All Non-City Users

The head of each non-city organization receiving Information Technology (IT) services from the City's computer resources shall be responsible for the following areas:

1. Ensure compliance with all standards, security policies and procedures provided by the Director of Information Technology including all copyright and privacy laws;
2. Obtain the consent for the use of data from the appropriate "owner agency." The Director of Information Technology, as custodian of all data residing in the central computing facility, will still require approval for access from the agency charged with maintaining the accuracy and timeliness of the data;
3. Inform the Director of Information Technology of any changes or deviations in the intent of the IT services provided;
4. Provide training to staff members who will directly interact with the computer. Obtain assistance for training from the Director of Information Technology to ensure that staff members are qualified to utilize and work with appropriate hardware, software, and firmware in a shared IT environment;
5. Assume all costs for the requested Information Technology (IT) services, including personnel cost, data communication cost, hardware, software, and related machine processing cost.

Computer Equipment

The City's computing facility consists of mainframe computers, midrange systems, servers, peripheral devices, network file servers, and specialized communications equipment, linked together to form a centralized computer system. Equipment shall be upgraded periodically to do technological obsolescence and/or the costs to support such technologies are prohibitive.

Computer Applications

The Director of Information Technology and the agency requesting the application shall determine application requirements jointly through the ITSC. Applications refer to all facets of information processing including Information Technology, word processing, image processing, voice processing, and any technological changes that bring information directly to those who need it to effectively accomplish their goals. The agency heads will maintain primary responsibility for ensuring that application requirements are accurately met.

Security Policy

The Department of Information Technology is responsible for implementing a security system that ensures the accuracy and integrity of electronic data and prohibits unauthorized access to city-owned computer resources. The director shall designate a central security administrator to develop security policies, guidelines, and procedures. The user agencies will enforce the policies at the local site. The security system procedures will address the responsibilities of the owners of resources, the custodian of resources, the functions of departmental security administrators and the central security administrator, and individual accountability. The Director of DIT will act as head of Public Safety Oversight Committee.

Procuring And Augmenting The City's It Staff

The Department of Information Technology shall periodically review staffing requirements and qualifications of applicants for open staff positions. The Department of Human Resources shall work jointly with the Department of Information Technology to ensure that qualified candidates are recruited and that the qualifications are unbiased and competitive with the industry. Contractors, student help and volunteers can supplement the permanent staff with permission from the managing director. Supplemental staff will be subject to the same security requirements as permanent staff members and will be held accountable for their activities.

Procuring Contract Services

The Director of Information Technology shall determine if contract services are necessary to accomplish priority tasks. When contract services are required, the Department of Information Technology will be responsible for integrating the resulting system into its existing workload, ensuring that adequate resources have been provided for subsequent system maintenance, and ensuring that the staff works closely with the contractor to be able to maintain the product or provide the same level of technical expertise upon termination of the contract.

All contracts for IT projects for the city and county require the approval of the director of DIT.

Definition Of Terms

The following definitions are provided for terms used in this directive:

CITY - The City and County of Honolulu.

CITY AGENCY - Any department, commission, board, bureau, office or other establishment that is part of the government of the City and County of Honolulu, excluding semi-autonomous agencies such as the Board of Water Supply.

COMPUTER RESOURCES - All hardware, firmware, software, personnel, and procedures that are part of Information Technology solutions.

DATA COMMUNICATION - The transportation or transmission of data from one location to another in a network of terminals linked together to a computer.

DEPARTMENT - The agencies directly under the mayor of the City and County of Honolulu that are part of the executive branch of government as provided in the Revised City Charter of 1973.

FIRMWARE - Computer devices such as ROM (Read-Only Memory) that have physical characteristics but perform specific functions usually through software. A programmer cannot alter the predetermined instructions, as they are part of the hardware circuitry.

FUNCTIONAL CONTROL - The authority to establish and enforce rules and regulations governing a specific function, i.e., the Information Technology function, such as acquiring equipment, determining information needs, staffing, etc.

HARDWARE - Computers and computer-related equipment and devices such as controllers, terminals, scanners, workstations, printers, and file servers.

OPERATIONAL CONTROL - The authority to establish and enforce rules, regulations and procedures to ensure the smooth operations of the central computing facility and all equipment linked to the citywide network.

SOFTWARE - Computer programs and procedures that enable the computer to perform predetermined functions and can usually be altered by a "programmer."

TELECOMMUNICATION - A form of information handling in which a Information Technology system utilizes communication facilities.

USER - Any person, group of persons, or organization using city computer resources or benefiting from the Information Technology services provided. City users would be city agencies such as the Department of Planning and Permitting and the Department of Customer Services. Non-city government users would be county, state, and federal agencies such as the County of Kauai, the State Department of Budget and Finance, or the Federal Bureau of Investigation. Non-government users would be persons or organizations in the private sector such as students involved in special projects and the Hawaiian Humane Society.

Project Review For FY 2006

This year involved the kick-off of several major projects that will update and reshape DIT operations.

The director and his division chiefs established a system for prioritizing the approximately 140 live projects that were currently being handled by the department.

Projects were categorized using the following criteria:

1. Required by Law
2. Priority of the the Director of DIT
3. Mayor's Directive
4. Required by City Audit
5. Obsolescence
6. Homeland Security
7. Maintenance
8. Funded
9. Other / ROI

Additionally, a new project management tool was created to consolidate reporting by the various divisions and managers in a central data base. This information is used to track the progress of each individual project and plot them on a GHANNT chart to better facilitate management oversight.

Specific Achievements of DIT during FY 2006

During the fiscal year 2005-2006, the City's DIT has completed many projects related to both past and current administrative directives.

A. Applications Division (Grace Cheng, Division Chief)

ERP RFP awarded

The largest project currently under way is the City and County of Honolulu Enterprise Resource Planning (CHERPS) project. The RFP was awarded to CGI-AMS and separate office space was established for the contractors team and city personnel assigned to this massive project. This is multi-million, multi-year project that will bring our city's main enterprise software in line with contemporary best practices for IT management of large municipal operations. Beginning with Budget and Finance the project will then progress to Human Resources and other agencies.



Completed Projects:

1. Signature Verification System Enhancement (Project Manager: Lisa Akena)
2. EEO Complaints Tracking and History System (Project Manager: Allison Chang)
3. Automated Field Reporting (AFR) (Project Manager: Cheryl Yamane)
4. Driver License Re-write (Project Manager: Ed Loui)
5. HFD Inspection POSSE System (Project Manager: Jon Chinn)
6. Webshpere WII Pilot (Project Manager: Preston Ko)
7. IAS World Web based RP system (Project Manager: Burt Masuda)
8. Performance Evaluation System (HPD) (Project Manager: Richard Do)
9. Document Management System (DocuShare) (Project Manager: Ralph Yasuhara)
10. Migration of GPS / AVL (Project Manager: Alvin Sunahara)
11. HFD HOSES GIS-based Applications (Project Manager: Walter Kuong)
12. e-Form Based Application Development (Project Manager: Richard Do, Analyst/Programmer: Stacey Toy)
13. Sewer IDA and IDA A/r Application Development Project (Project Manager Andy Yip, Analyst: Dennis Won)
14. CHRMS Pay Raises and Other Maintenance Project (Project Manager: Paul Chun, Analyst: Cheryl Yamane)
15. PC/Printer Replacement and Maintenance (Project Manager: Ralph Yasuhara)
16. Atiris Client Management Suite Implementation (Project Leads for CSR: Diane Shiraki / Sara Miyasaki)
17. Atiris Deployment Implementation (Project Manager: Ralph Yasuhara)
18. Tactical interoperable Communications Plan and Functional Exercise

Projects Nearing Completion:

1. Refuse Billing and Collection Re-write (Project Manager: Richard Do)
2. FileMaker Pro Development Project (Project Manager: John Quitoriano)
3. Synergen to PTA Interface (Project Manager: Andy Yip)
4. Business Process Modeling (Project Manager: Andy Yip)
5. CLK-SVRS (election mainframe program) Enhancements (Project Manager: Lisa Akena)
6. ERP Project – Phase I/Integrated Financial Management System (Project Manager: Mark Uyeda)
7. NBC WiFi Project (Project Manager: Diane Shiraki)
8. Enhanced 911 (E911) – Phase I)Project Manager: Clement Chan)
9. Kokohead Telecom Tower & Facility Reconstruction (Project Manager: Alvin Sunahara)
10. HPD PSAP (911) Call Center Reconstruction

B. Operations Division (Herbert Ho, Division Chief)

Completed Projects:

1. Install CICS 2.2 on the Mainframe Computer (Project Manager: Jeff Eshima)
2. Mainframe Xerox Printer Replacement/XPAF & PDF Software for MP (Project Manager: Herb Ho)

C. Technical Support Division (Alvin Sunahara, Division Chief)



Radio Antennae Repair Underway

The City's 24 communication towers that support police and fire department radio systems, a vital function of emergency services, are in a state of serious disrepair. DIT has embarked on a four-year, \$25 million program of repair and replacement that will bring the system to an acceptable, hurricane resistant condition. Reconstruction has been completed on three vital tower locations with five more in their planning and design phase.

IP Phone Deployment

DIT staff continues to improve the city's communication network and use it to replace the old phone systems with new voice over IP equipment (VoIP). These units will greatly reduce costs over convention phone service, and,

at the same time, allow for more advanced uses and features. DIT plans for agency by agency upgrading to VoIP beginning with completion of the Frank F. Fasi Municipal Building, the new Fire Department headquarters and Police substations.

Completed Projects:

1. HFD HQ IP Phone System (Project Manager: Clement Chan)
2. Finance Factors Building (Project Manager: Clement Chan)

Projects Underway:

1. Access Control and Monitoring System (ACAMS) (Project Manager: Gordon Bruce)
2. Computer Cyber Security (Project Manager: Brian Miyata)
3. 800 MHz Re-banding (Project Manager: Alvin Sunahara)
4. Telecommunications Leasing Program (Project Manager: C.J. Matsushige)

D. Administrative Division (Gordon Bruce, Director of DIT)

Wireless Chinatown Pilot

One area that holds much promise for economic development throughout our city is the proliferation of wireless broadband. We now have many WiFi hotspots throughout Oahu, and will eventually have contiguous coverage. The City has partnered with EarthLink to initiate WiFi coverage of Downtown's Chinatown district. The City negotiated for free broadband WiFi service for the general public for period of approximately one year. Installation of the network should begin in early 2007. This will serve as a test for technologies that could be deployed in other areas of Oahu.



Improve Internet operations

DIT continues to add interactive/transactional feature to our Web site, including new online building permit application processes that have shown great early use. There is also increased use and development of electronic forms for internal use by city employees.

Homeland Security Issues/Interoperability

There are few areas where the application of new technology can bring about such significant improvements as with public safety. The Department of Information Technology to work with our Police, Fire, Civil Defense and other departments to improve communications among all first-responders and establish interoperability standard. We have undertaken early planning activities for the eventually relocation of the Oahu Civil Defense Emergency Operations Center, and its consolidation with the Joint Traffic Management Center. DIT will specify and design the technology to empower this state-of-the-art nerve center for disaster and crisis management.

We will further charge our DIT people with identifying the best solutions for facilities security, including video surveillance and building access. We need to use the best new technologies to achieve a truly safer city for our city workers and our residents.

Projects Nearing Completion:

1. Adapt existing technology to new areas within the City (Project Manager: Gordon Bruce)
2. Projects Mandated by Charter Commission (Project Manager: Gordon Bruce)

CONCLUSION

By continuing to employ high tech solutions, and expanding our relationships with private sector partners the City of Honolulu will continue to keep pace with the best practices of other great cities. We can use technology to offer our citizens convenience and improved security, and our business partners faster city services and better ways to access city business opportunities.

Please direct any specific inquiries regarding the operations and policies of the City Department of Information Technology to: gbruce@honolulu.gov, Gordon Bruce, Director of DIT, City and County of Honolulu, 650 South King Street, 5th Floor, Honolulu HI 96813-3017